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Editor's Spotlight/Take 5

Editor's Spotlight/Take 5: Most American Academy of Orthopaedic Surgeons' Online Patient Education Material Exceeds Average Patient Reading Level

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Albert Schweitzer said, "Each patient carries his own doctor inside him. They come to us not knowing that truth. We are at our best when we give the doctor who resides within each patient a chance to go to work" [2].

In order to put the doctor inside each patient to work, that patient—and his or her inner doctor—need some basic information about the condition they are treating together. In other words, some education.

The problem is, physicians just are not that good at patient education. Although we continue to learn about shared decision-making models [1, 6] and newer technological approaches to disseminating information, we generally are unsuccessful at helping patients understand or remember much of what we share [3]. Perhaps as a result, what we perceive to be informed consent often is anything but informed.

At the heart of this lies a problem that is simple to identify but terribly difficult to remedy: Literacy. In the United States, an affluent country by any standard, some 12% of the population cannot read well enough to search a short, simple text about what a patient is allowed to drink before a medical test. Approximately 34% of the US population reads well enough only to use a television guide to find out what programs are on at a given time [4]. Nearly a quarter of the population acknowledges not having read a book in the past year [7], and the average adult in the United States reads at only the eighth grade level [5].

It is no wonder we have trouble conveying important but complicated concepts to our patients using the written word. Consider the following explanation about a child with clubfoot: *"Your son's foot did not develop properly during your pregnancy. If we don't treat this condition, it is likely that he will develop painful arthritis at a young age and have difficulty walking. I recommend we start by using a cast, but if that doesn't work, I will probably recommend major surgery to correct the problem."* Using a

Note from the Editor-In-Chief: In "Editor's Spotlight," *one of our editors provides brief commentary on a paper we believe is especially important and worthy of general interest. Following the explanation of our choice, we present* "Take Five," *in which the editor goes behind the discovery with a one-on-one interview with an author of the article featured in* "Editor's Spotlight."

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commercially available tool to guide my language choices, I crafted that paragraph at exactly the tenth grade level. As such, it is beyond a large majority of patients in the United States, a fact I imagine will surprise most of us, as it did me. (Analyzed using the Flesch-Kinkaid reading level tool [Microsoft Word, Microsoft Inc, Redmond, WA, USA]).

Against that backdrop, Dr. Alan H. Daniels's group at Brown University investigated the reading level of the online patient education materials offered by the American Academy of Orthopaedic Surgeons (AAOS). Perhaps not surprisingly—if the simple example I gave is two grades above what the average US reader might understand—Dr. Daniels's team found that more than 80% of the patient-information content from the AAOS is too hard for the average reader.

This obviously is no slight against the AAOS; as noted earlier, all of us struggle with communication—whether in terms of informed consent, shared decision-making, or written materials. The concepts we need to explain are complicated. Clumsy or ineffective oversimplification of complex, important material poses its own risks.

But there are options. Join me as we explore them in the Take 5 interview that follows with Dr. Alan Daniels.

Take Five Interview with Alan H. Daniels MD, senior author of "Most American Academy of Orthopaedic Surgeons' Online Patient Education Material Exceeds Average Patient Reading Level"

Seth S. Leopold MD: *Congratulations on a thoughtful and thought-provoking paper. Although you focused on materials from the AAOS, it seems to me the issue is much broader: How to take complex material and make it comprehensible to consumers whose level of sophistication may vary widely. What approaches can surgeons use to make our written materials more effective?*

Alan H. Daniels MD: You have identified the crux of the problem: Each patient has his or her own unique level of education and sophistication. Some patients come to the orthopaedic surgeon's office with a thorough understanding of the problem and its available treatments, and need very little additional education from the surgeon. Others have little formal education, no background knowledge regarding their pathology, and may be functionally illiterate. The conversation between the surgeon and the patient (and the literature provided to the patient for self-education) for these different kinds of patients must be drastically different to best meet their needs. Thoughtful counseling and

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clinical experience may help the surgeon handle these scenarios in the clinic, but providing appropriate education materials to the patient is another matter. When creating patient education materials, a readability index such as the Flesch-Kincaid can be used to make sure the information is written at a level of that particular surgeon's patient population (not all communities or areas of the country have the same level of literacy). Having educational materials with initial background information written at a sixth grade level, followed by increasingly complex and sophisticated information may help. It is also important to make sure the patient

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information has ample illustrations, as visuals have been shown to improve comprehension. Finally, never forget to ask your patients if they understand their problem and the options for treatment after they have reviewed the educational materials. Having the patient tell you about what they understand about their problem can be revealing, as what you hear may sometimes be surprising. As an important aside, I would like to say that our work is in no way intended to criticize the AAOS or their high-quality educational materials, but instead represents an effort to identify a possible area of study to improve the health literacy of our neediest patients.

Dr. Leopold: *My example in the Editor's Spotlight commentary about a patient with clubfoot might seem simple to us, but it probably would come across as terribly complicated to someone who reads only at a sixth or eighth grade level. How would you modify that paragraph to make it more accessible to individuals who read at lower levels, and, is there a danger of simplifying to the point of losing key information?*

Dr. Daniels: I have modified your paragraph to read at exactly a sixth grade level: *"Your son's foot did not grow properly so it looks different than a normal foot. If we do not treat him now, he will likely get a painful foot at a young age and may have difficulty with walking. To help him, I suggest we start by treating him with a cast. If the cast does not work, I will likely suggest a major surgery to fix the foot."*

I believe that this paragraph includes all of the important information contained in your original tenth grade reading level version. To lower the reading level, I shortened and simplified words and sentences. This depth of information may be written at an appropriate baseline level for some patients containing most of the background information for their problems. However, material written at a sixth grade level will necessarily lose some of the nuances and details some patients may desire. Patients who have a higher level of sophistication may request (or require) more detailed information, such as details about the options for surgical procedures, or what percentage of patients suffer a postoperative complication. Having secondary printed resources in your office or having websites to recommend with more detailed information will benefit your more-sophisticated patients, and these materials will by necessity be written at a level well above the sixth grade reading level.

Dr. Leopold: *It appears that the problem is not limited to the written word; research suggests that we struggle with the whole topic of informed consent, in large measure because the material is either not understood or not retained. What tools should we use to be sure that the patient even understands what we are saying?*

Dr. Daniels: More and more research is showing that patients do not retain the vast majority of surgical consent information, even when the physician conversation is paired with standardized counseling, video information, or printed materials. At this point, a patient-centered informed consent process face-to-face with the surgeon in a relaxed setting, well in advance to surgery is best whenever possible.

Dr. Leopold: *Sometimes a patient needs to think it over or to get another opinion before deciding on a treatment plan, and, obviously, it is important that patients remember our postoperative instructions. But studies show that patients retain only a fraction of what they hear in the office, and you have shown that it can be a real challenge to create reading materials that patients will understand. What options can a surgeon use to help patients retain the material the surgeon shares during an office visit?*

Dr. Daniels: Having patients bring family members, friends, or caretakers to the clinic with them can be helpful. Having them describe their understanding of your conversation is also often a

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valuable exercise. There is an abundance of high-quality patient education materials available to surgeons from the AAOS, subspecialty societies, and implant companies to provide to patients to help them gather all of the information. However, as our study showed, many of these materials may be written at levels too challenging for many patients to understand. In the future, assessment of patient literacy may be part of the preoperative screening process, with custom patient educational materials provided based on literacy-level.

Dr. Leopold: *So much of this is bound up in culture and language, as well as education. The United States—like many countries—is a polylingual, multicultural nation. Providing culturally-sensitive, effective care is a huge, important topic, certainly more than we can cover here in general. Are there tools we can use outside of written materials to help us ensure our non-English speaking patients are educated enough to participate in true informed consent?*

Dr. Daniels: Fortunately, patient education materials now are available in numerous languages both in written form as well as in video format on the Internet, although the office visit is still the most-important component of the patient-education process. Having a certified medical interpreter present is important whenever possible for counseling patients who do not speak your language. Taking your time for a thoughtful conversation and asking the patient what they understand about their problem and the treatment options remains the best method we have.

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